

## **MICROINJECTION OF CRYOPROTECTANTS FOR PRESERVATION OF CELLS**

### **ABSTRACT OF THE DISCLOSURE**

5           A preservation method for biological material having cell membranes includes  
microinjecting the cells with sugar; preparing the cells for storage; storing the  
biological material; and recovering the stored biological material from storage. The  
invention also features a method of culturing a cell *in vitro* using a hypertonic medium.  
Carbohydrate sugars such as trehalose, sucrose, fructose, dextran, and raffinose, may  
10   be used as bio-protective agents or in the culture medium.